Pilot Test for Site Soil Sifting

Sifting of site soils will be by stages. Six-inch lifts will be scraped and deposited into the first of a series of 4-foot by 6-foot screens. Three to four custom designed screens having decreasing hole size will be used.

- Screen 1 will be constructed from rebar or similar metal rod and will have a six inch opening. This screen will be used to filter out large rocks and debris from the mix in order to prevent damage to the screens.
- Screen 2 will have a three-quarter inch mesh. This screen will retain most of the ordnance anticipated on the site.
- Screen 3 will have a one-half inch mesh. This screen will retain most of the munitions debris and small component parts. Most of the percussion primers will be retained by screen 3.
- Screen 4 will have a one-quarter inch mesh. This screen will filter all but the finest materials.

For the pilot test Screen 1 will not be used since much of the large debris has been removed by hand. During actual screening operations Screen 4 will not be used due to the clogging issue.

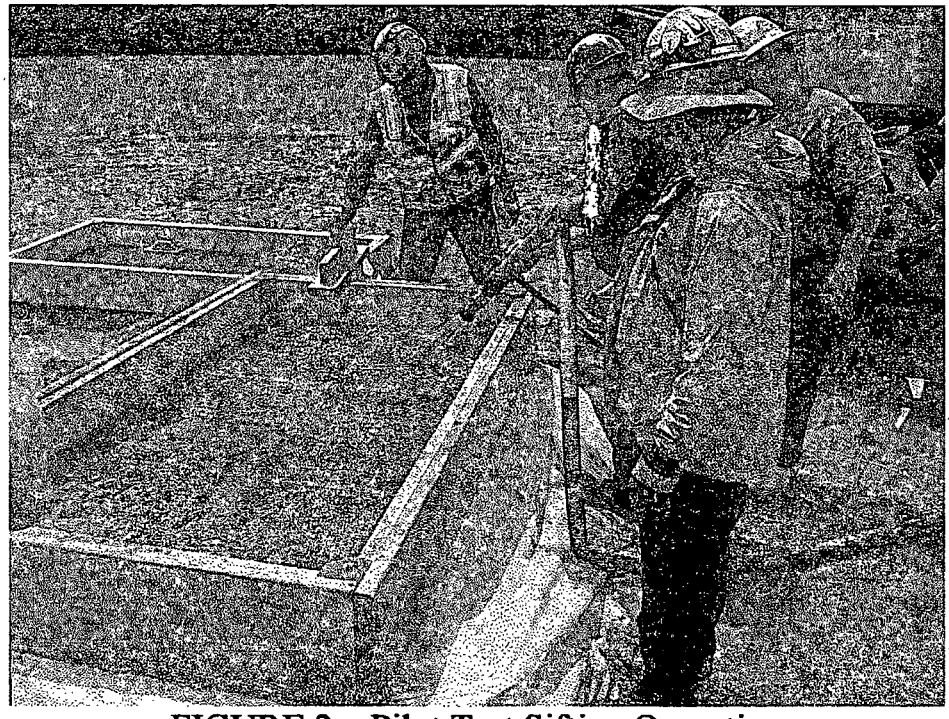

FIGURE 2 – Pilot Test Sifting Operation

Large quantities of percussion primers such as the 55-grain M38A1 and the 20-grain M23A1 (see figure1) are being discovered at Elkton Farm Firehole. These items are much smaller than any of the target ordnance identified during previous phases of the investigation. The percussion primers were discovered in larger quantities during pilot sifting operations in grid I4C. The primers are in a deteriorated condition and significantly smaller than a dime (Figure 1). The small size sifting screen mesh that would be required to catch these smaller items severely inhibits the passage of soil through the screen.

The hazard presented, by these and similar-sized items, is minimal unless large numbers of the items are collected, confined and detonated in a tightly sealed metal container. Individually, and if in good condition, the items could have a low explosive content on the order of a .22 caliber blank for a starter pistol.

It is therefore recommended that sifting operations focus more on items larger than these, enabling a larger mesh sifting screen to be used and allowing more soil to be processed in a fast and efficient manner.

Figure 1 – Percussion Primer Debris